DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: NH000-0001-04(47), Spalding County
P. I. No.: 342621
SR 3/US 19 Widening

OFFICE: Engineering Services

DATE: February 25, 2009

FROM: Ronald E. Wishon, Acting Project Review Engineer REW

TO: Brent A. Story. P.E., State Road Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
Drainage (D)				
D-1	Use HDPE pipe for storm sewers in lieu of concrete pipe.	$322,517	No	The Contractor will select pipe from the Allowable Pipe Chart which will be included in the plans.
D-2	Reduce the number of catch basins.	$72,166	Yes	This will be done where possible.
D-3	Reduce the length of storm sewers by using existing catch basins and drain pipes where possible.	$377,245	Yes	This will be done where possible.
Alignment (A)				
A-2	Improve lane continuity of US-19/41 left turn lanes at Bowling Drive.	Design Suggestion	Yes	This should be done.
A-4	Use a two-way connector/frontage road southbound and a one-way connector road northbound.	$80,956	No	Extensive negotiations have been completed between GDOT and many property owners. Reopening negotiations could cost GDOT over $1 million.

Alignment (A) Continued				
A-6	Combine some of the driveways to reduce the number of entry drives.	Design Suggestion	No	The right of way has already been purchased.
A-10	Use one-way connector/frontage roads in both the northbound and southbound directions.	$159,270	No	Extensive negotiations have been completed between GDOT and many property owners. Reopening negotiations could cost GDOT over $1 million.
A-11	Use two-way connector/frontage roads in both the northbound and southbound directions.	(-$4,970)	No	Extensive negotiations have been completed between GDOT and many property owners. Reopening negotiations could cost GDOT over $1 million.
Section (S)				
S-1	Use 24 inch wide curb and gutter in lieu of 30 inch wide curb and gutter.	Design Suggestion	No	Most of the right of way has been purchased. Could potentially result in a cost increase due to additional catch basins needed for gutter spread.
BRIDGE (B)				
B-1	Construct the bridge using a short span steel bridge.	Design Suggestion	No	Short spans will require crash walls at the intermediate bents adjacent to the railroad track at an estimated cost of $240,000.
B-2	Construct the bridge using a short span concrete flat slab bridge.	Design Suggestion	No	Short spans will require crash walls at the intermediate bents adjacent to the railroad track at an estimated cost of $240,000.
B-6	Use 5 foot shoulder on bridge with no raised sidewalk in lieu of 5 foot sidewalk.	$12,284	No	Increased cost for Jersey Barrier will negate cost savings. Safety concerns due to loss of sidewalk.
B-10	Consider a three stage construction plan for the bridge over the railroad.	Design Suggestion	Yes	This should be done.

A meeting was held on February 25, 2009 to discuss the above recommendations. Jason McCook, Frantz Boileau, Willie Lewis, Angelo Yokaris with Road Design and Ron Wishon and Douglas Fadool with Engineering Services were in attendance.

The results above reflect the consensus of those in attendance and those who provided input.

Approved: _____ **Date:** 2/29/09
Gerald M. Ross, P. E., Chief Engineer

REW/DMF

Attachments

c: Genetha Rice-Singleton
Brent Story
Jason McCook
Brad McManus
Willie Lewis
Angelo Yokaris
Frantz Boileau
Paul Liles
Bill Ingalsbe
Bill DuVall
Jennifer Tait
Paul Alimia
James Magnus
Lamar Pruitt
Craig Sewell
Ken Werho
Lisa Myers
General Files

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH000-0001-04(47) Spalding County
P.I. No. 342621

OFFICE Road Design

DATE January 8, 2009

FROM Brent A. Story, P.E., State Road Design Engineer

TO Brian Summers, P.E., Project Review Engineer

SUBJECT REQUEST FOR V.E. STUDY

A VE study was held on project NH000-0001-04(47) the week of October 21, 2008. Attached are the recommendations of the VE study team as well as the Office of Road Design's decisions regarding their implementation. Please schedule an implementation meeting at your earliest convenience to discuss the Departments' decisions regarding those recommendations.

Thank you.

BAS:JLM:MBM

Attachments

Office of Road Design's response to the VE study report on GDOT project NH000-0001-04(047) Spalding County

PI No. 342621

Alternative D-1

Description: Use HDPE pipe for storm sewers in lieu of concrete pipe.
Cost savings: $322,517
Response: The Department has done an extensive amount of testing of HDPE pipe in various locations throughout the state. GDOT has developed a chart which specifies the type of material allowed with the information from these tests and others on corrugated metal and concrete pipes. The plans do not indicate the material used in a particular pipe; however, the contractor is directed the Allowable Materials Chart located in the general notes of the plans and allowed to make the decision if more than one type of pipe is allowed.

The recommendation of the Road Design Office is: Not to implement this recommendation.

Alternative D-2

Description: Reduce the number of catch basins.
Cost Savings: $72,166
Response: We are currently designing the storm water system on the project. The VE team did not calculate gutter spread which is a key factor in deciding where the inlets are spaced. We are in the process of verifying their findings and will minimize the number of catch basins where possible.

The recommendation of the Road Design Office is: Partially implement this recommendation.

Alternative D-3

Description: Reduce the length of storm sewers by using existing catch basins and drain pipes where possible.
Cost Savings: $377,245
Response: Using existing catch basins that will be under future travel lane creates junction boxes or manholes that will be very difficult to maintain. As proposed, all pipe junctions will be outside of the travel lanes. We are currently determining whether the existing storm drainage system can adequately address the expected capacity of the storm-water runoff to determine if any existing pipes can be used. At present no existing pipes can be used either because of capacity limitations or their connections to junctions are under the proposed pavement. If existing pipe can be utilized it will be retained.

The recommendation of the Road Design Office is: Partially implement this recommendation.

Alternative A-2

Description: Improve lane continuity of US-19/41 left turn lanes at Bowling Drive
Cost Savings: Design Suggestion
Response: The configuration shown at the time of the VE study was under revision and will be revised to provide lane continuity, reduce inflection in the lanes and reduce the severity of weaving movements.

The recommendation of the Road Design Office is: Implement this recommendation

Alternative A-4

Description: Use a 2 way connector/frontage road southbound and one-way connector road northbound
Cost Savings: $80,956
Response: Extensive negotiations were made between the Department and the developer of the Wal-Mart located in the southwest quadrant of the SR 92/US 19 intersection. The placement of this frontage road would require reopening negotiations with this property owner as well as others, potentially costing the Department over $1 million.

The recommendation of the Road Design Office is: Not to implement this recommendation.

Alternative A-6

Description: Combine some of the driveways to reduce the number of entry drives.
Cost Savings: Design Suggestion
Response: Most of these driveways are located on parcels that have been purchased by the Department. To close and relocate those driveways would require reopening negotiations that have already been closed, which would require monetary compensation.

The recommendation of the Road Design Office is: Not to implement this recommendation.

Alternative A-10

Description: Use one-way connector/frontage roads in both north and southbound directions
Cost Savings: $159,270
Response: Extensive negotiations were made between the Department and the developer of the Wal-Mart located in the southwest quadrant of the SR 92/US 19 intersection. The placement of this frontage road would require reopening negotiations with this property owner as well as others, potentially costing the Department more than $1 million.

The recommendation of the Road Design Office is: Not to implement this recommendation.

Alternative A-11

Description: Use two-way connector/frontage roads in both north and southbound directions
Cost Savings: ($4,970)
Response: Extensive negotiations were made between the Department and the developer of the Wal-Mart located in the southwest quadrant of the SR 92/US 19 intersection. The placement of this frontage road would require reopening negotiations with this property owner as well as others, potentially costing the Department more than $1 million.

The recommendation of the Road Design Office is: Not to implement this recommendation.

Alternative S-1

Description: Use 24 inch wide curb and gutter in lieu of 30 inch wide curb and gutter
Cost Savings: Design Suggestion
Response: Most of the R/W has already been purchased so that any savings in R/W cost would be minimal. Although minimal the extra distance between the travel lane and the curb and the extra storage for storm water makes the wider gutter more advantageous.

The recommendation of the Road Design Office is: Not to implement this recommendation.

Alternative B-1

Description: Construct the bridge using a short span steel bridge.
Cost Savings: NA
Response: The suggestion of using 30 to 40-ft spans will require the use of crash walls at the intermediate bents adjacent to the railroad track. The estimated cost of crash walls is approximately $240,000. This alternative is not recommended due to the additional costs.

The recommendation of Bridge Design Office is: Not to implement this recommendation.

Alternative B-2

Description: Construct the bridge using a short span concrete- flat slab bridge
Cost Savings: NA
Response: Flat slab concrete bridges require short spans which will require crash walls at the intermediate bents adjacent to the railroad tracks. The flat slab bridge will also require false work that is not required by the other alternates that are under consideration.

The recommendation of Bridge Design Office is: Not to implement this recommendation.

Alternative B-6

Description: Use 5-ft shoulder on the bridge with no raised sidewalk in lieu of 5-ft sidewalk
Cost Savings: $12,284
Response: Eliminating the sidewalk will require a wider bridge barrier (1' 11 ½" wide New Jersey barrier as opposed to the 1' 2 ½" wide parapet typically used with a sidewalk). This will add an additional 130 sq ft. of bridge surface. The 130 sq ft. of additional surface will cost $12,340 (130 sq ft at $90/sq ft). The additional reduction in safety associated with the removal of the sidewalk, could be included as a cost which would limit the gains realized by implementing this alternative.

The recommendation of Bridge Design Office is: Not to implement this recommendation.

Alternative B-10

Description: Consider a 3 stage construction plan for the bridge over the railroad.
Cost Savings: Design Suggestion
Response: The suggestion of placing Stage 1 construction between the existing bridges will be implemented as well as a stage 3 construction scheme.

The recommendation of Bridge Design Office is: Implement this recommendation.

PRECONSTRUCTION STATUS REPORT FOR PI:342621-

PROJ ID :	342621-	**SR 3/US 19/H.TALMADGE HWY FM N OF CS 804 NORTH TO N OF CR 18**				**MGMT LET DATE :**	May-10
COUNTY :	Spalding					**MGMT ROW DATE :**	
LENGTH (MI) :	1.66	**MPO:**	Atlanta TMA	**DOT DIST:**	3		
PROJ NO.:	NH000-0001-04(047)	**TIP #:**	SP-022	**CONG. DIST:**	3	**SCHED LET DATE :**	7/22/2010
PROJ MGR:	McManus, Brad	**MODEL YR :**	2020	**BIKE:**	N	**WHO LETS?:**	Prepare Plans for Shelf
OFFICE :	Road Design	**TYPE WORK:**	Widening	**MEASURE:**	M	**LET WITH :**	
CONSULTANT:	No Consultant, GDOT In-House Design	**CONCEPT:**	ADD 6U(MED 20)	**BRIDGE SUFF:**			
SPONSOR :	GDOT	**PROG TYPE:**	Safety	**NEEDS SCORE:**	8		
DESIGN FIRM:		**BOND PROJ :**					

SCHED START	*SCHED FINISH*	*ACTIVITY*	*ACTUAL START*	*ACTUAL FINISH*	*%*
		Concept Development	1/2/1990	8/14/1991	100
		Concept Meeting	12/13/1990	12/13/1990	100
		PM Submit Concept Report	7/18/1990	7/18/1990	100
		Receive Preconstruction Concept Approval	8/21/1991	8/21/1991	100
		Management Concept Approval Complete	**7/12/1991**	**8/14/1991**	**100**
	2/24/2009	Value Engineering Study	8/13/2008		71
		Public Information Open House Held	10/30/2001	10/30/2001	100
		Environmental Approval	**7/1/1997**	**5/8/1998**	**100**
		Mapping	11/13/2007	1/8/2008	100
		Field Surveys/SDE	12/15/1995	10/15/1997	100
		Preliminary Plans	**1/5/2001**	**3/31/2002**	**100**
	2/17/2009	Preliminary Bridge Design	3/17/2003		50
		Underground Storage Tanks	7/10/1998	5/21/1999	100
		404 Permit Obtainment	9/28/2005	10/24/2005	100
		PFPR Inspection	5/15/2002	5/15/2002	100
		R/W Plans Preparation	2/26/2002	5/20/2002	100
		R/W Plans Final Approval	**7/31/2002**	**8/5/2002**	**100**
		I. & D Approval	11/20/1996	11/22/1996	100
	5/26/2010	R/W Acquisition	8/12/2002		97
		Stake R/W	8/2/2002	8/15/2002	100
		Soil Survey	1/29/1998	9/29/1999	100
		Bridge Foundation Investigation	12/12/2001	9/26/2002	100
	10/1/2009	**Final Design**	**8/6/2002**		35
	9/24/2009	Final Bridge Plans Preparation	3/12/2003		20
)/23/2009	10/26/2009	FFPR Inspection			0
1/9/2009	11/20/2009	Submit FFPR Responses (OES)			0

PROGRAMMED FUNDS

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	1993	1993	712,100.00	Q05	AUTHORIZED	3/18/1993
ROW	2003	2003	3,100,000.00	Q05	AUTHORIZED	9/25/2002
CST	2010	2018	32,485,344.44	L050	PRECST	

PE Cost Est Amt:	712,100.00	Date:	
ROW Cost Est Amt:		Date:	
CST Cost Est Amt:	15,047,000.00	Date:	5/12/2008

STIP AMOUNTS

Phase	Cost	Fund
PE	0.00	Q05
ROW		Q05
CST	10,627,000.00	L050

District Comments

RW PLANS APPROVED 8/5/02 - 8/29/02 WO 39 WOLVERTON RW REVISIONS; PROJECT CST MAY NEED TO BE BROUGHT IN TO FY 2006 GIVEN RW PROGRESS 10/1/04; COOR W/WALMART ON US 19 [2-27-06]

GO ROW Comments:
ROW waiting on rev. plans for +- 18 Parcels since 01/06.

DD:	LEONI TO REQUEST WORK ORDER. NEED 02C 9-14-2000. Coordinate w/350710 for drainage 3/6/01.
ridge:	LAIII 01/05/09
esign:	MBM: AY working for FFPR expect survey in 1-29-2009
IS:	CEApvd05-08-98| Rv09-03-02| NOE Suspended 09-02-08| Alimia 12-18-08
GPA:	SPALDING SGN DO UTILITIES 9-25-90.
rogramming:	PR2/PE=6-17-93|#1 9-26-2000|#2 7-08|#3 8-08|#4 12-08
OW:	Waiting on plan revisions over 1.5 years. 6-08 Proj noe on Suspend 9-2-08
ailroad:	CGA
raffic Op:	>SEND PLANS FOR S/M/SIG WHEN 50% COMPLETE $+*
ST:	SENT 8/91 - RAH
tility:	revised 2nd sub to utils 01/02/09
MG:	2161M (H85(94)-W/V88); OLD JOB #M1452

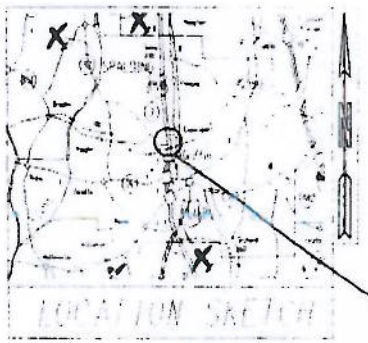
Prel. Parcel CT:	39	**Total Parcel in ROW System:**	49	**Cond. Filed:**	0	**Acquired by:**	DOT	*DEEDS CT:*	30
Under Review:	0	**Options - Pending:**	0	**Relocations:**	1	**Acquisition MGR:**	Manley, Steve (C)		
Released:	41	**Condemnations- Pend:**	0	**Acquired:**	30	**R/W Cert Date:**			

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH-0001-04(047)		

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PLAN AND PROFILE OF PROPOSED

US 19 11/SR 3 WIDENING



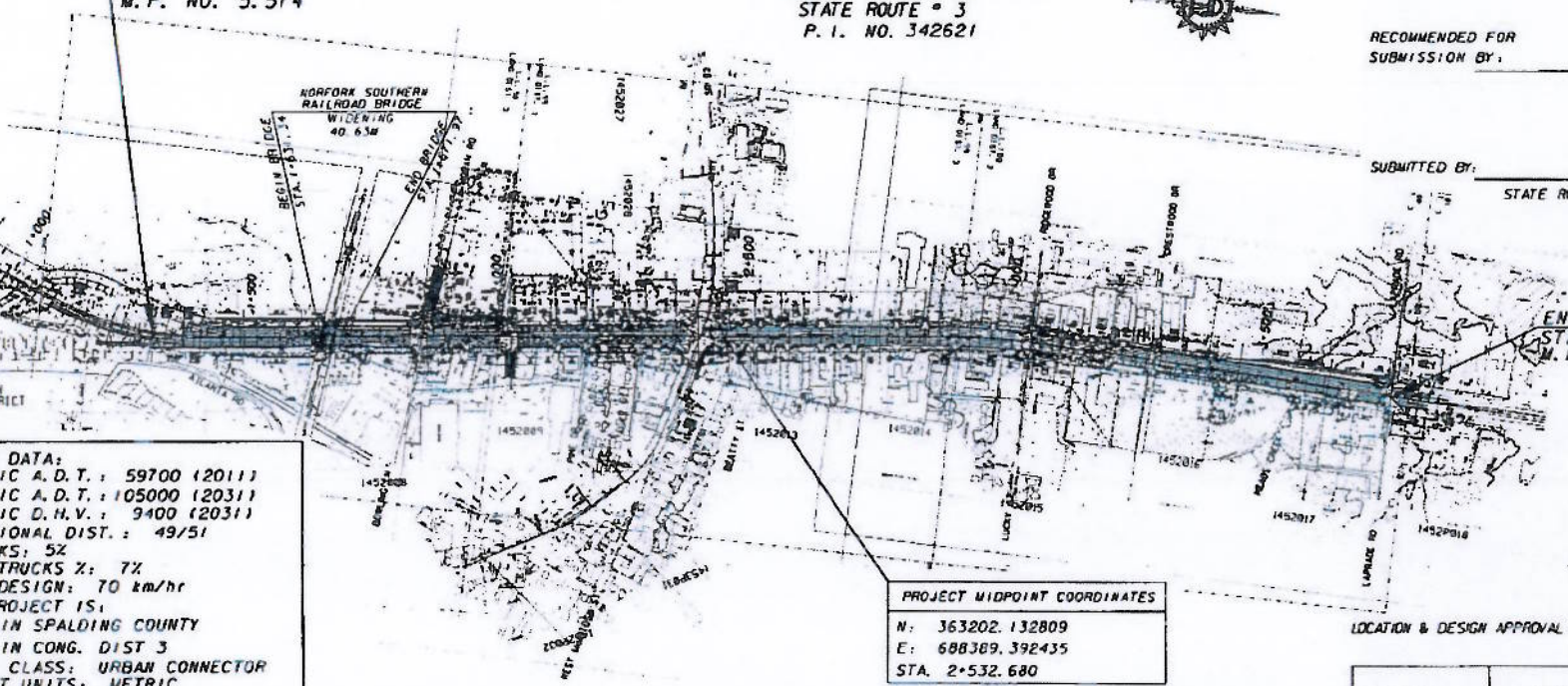
PROJECT NH-0001-04(047)

NOTE :
ALL REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS USED, OR TO BE USED IN CONNECTION WITH THIS DOCUMENT, TO " STATE HIGHWAY DEPARTMENT OF GEORGIA ", "STATE HIGHWAY DEPARTMENT ", GEORGIA STATE HIGHWAY DEPARTMENT ", " HIGHWAY DEPARTMENT ", OR " DEPARTMENT " WHEN THE CONTEXT THEREOF MEANS THE STATE HIGHWAY DEPARTMENT OF GEORGIA MEAN, AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.

FEDERAL AID PROJECT
NH-0001-04(047)
SPALDING COUNTY

FEDERAL ROUTE * US 19, 41
STATE ROUTE * 3
P. I. NO. 342621

BEGIN PROJECT
STA 1+300.000 US 19/41
M. P. NO. 5.574



END PROJECT
STA 3+765.360 US 19/41
M. P. NO 7.110

PREPARED BY: _____
DESIGN ENGINEER II

RECOMMENDED FOR SUBMISSION BY: _____
DESIGN GROUP MANAGER

SUBMITTED BY: _____
STATE ROAD AND AIRPORT DESIGN ENGINEER

LOCATION & DESIGN APPROVAL DATE: 5-24-01

DESIGN DATA:
TRAFFIC A.D.T. : 59700 (2011)
TRAFFIC A.D.T. : 105000 (2031)
TRAFFIC D.H.V. : 9400 (2031)
DIRECTIONAL DIST. : 49/51
% TRUCKS: 5%
24 HR. TRUCKS %: 7%
SPEED DESIGN: 70 km/hr
THIS PROJECT IS:
100% IN SPALDING COUNTY
100% IN CONG. DIST 3
FUNCT. CLASS: URBAN CONNECTOR
PROJECT UNITS: METRIC
VERTICAL DATUM: 88
HORIZONTAL DATUM: 83(94)
COORDINATE ZONE: WEST
PROJECT DESIGNATION: EXEMPT

PROJECT MIDPOINT COORDINATES
N: 363202.132809
E: 688389.392435
STA. 2+532.680

LENGTH OF PROJECT	COUNTY NO. 255 KM
NET LENGTH OF ROADWAY	2.527
NET LENGTH OF BRIDGES	0.041
NET LENGTH OF PROJECT	2.568
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	2.568

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANY WAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

RATIO 1:5000
0 100 200 400
SCALE IN METERS

DATE _____ CHIEF ENGINEER

PLANS COMPLETED	
REVISIONS	